DETAILED ACTION

1. This office action is responsive to communication filed on August 7, 2008.

Response to Arguments

2. Applicant's arguments, see pages 2-4, filed August 7, 2008, with respect to claims 1 and 4 have been fully considered and are persuasive. The rejection of claims 1-7, 9, 12, 23, 25 and 27 has been withdrawn.

Response to Amendment

3. The amendment filed June 24, 2008 has been entered by the Examiner.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment was given in a telephone interview with Christopher Tobin (Reg. 40,290) on September 24, 2008.

5. The application is amended as follows:

Claim 16. (cancelled)

Allowable Subject Matter

6. Claims 1-7, 9, 12, 23, 25 and 27 are allowed.

7. The following is an examiner's statement of reasons for allowance:

Consider claim 1, the closest prior art, Poynton, teaches:

A gamma correction device in an image capturing apparatus(page 100, paragraph 3, page 101, figure 6.5), the gamma correction device performing gamma correction on a video signal from an image capturing element on the basis of at least one correction curve having a predetermined input-output characteristic(Gamma correction is performed based on the Rec. 709 correction curve, pages 100-103, figure 6.6.), wherein said at least one correction curve has a slope of 5.0 or less at the origin(The slope is 4.5, pages 102-103.) such that a corrected video signal conforms to film properties(see bottom of page 100 through page 101).

However, the prior art of record does not teach nor reasonably suggest a correction curve having a slope of less than 5.0 at the origin, while being of the form $Signal_{OUT} = a^{*}\log_{10}(Signal_{IN} + b) + c$, as recited in claim 1.

Claims 2, 3, 7, 9 and 12 are allowed as depending from an allowed claim 1.

Consider claim 4, the closest prior art, Poynton, teaches:

A gamma correction device in an image capturing apparatus(page 100, paragraph 3, page 101, figure 6.5), the gamma correction device performing gamma

correction on a video signal from an image capturing element on the basis of at least one correction curve having a predetermined input-output characteristic(Gamma correction is performed based on the Rec. 709 correction curve, pages 100-103, figure 6.6.), wherein said at least one correction curve comprises a composite of a first correction curve segment lying from the origin to a predetermined level of an input signal(The correction curve comprises a first segment lying from the origin to an output tristimulus value of 0.018. See pages 102-103, Eq. 6.1 and figure 6.6.) such that a corrected video signal conforms to a cathode-ray tube monitor(Gamma correction is applied for the purpose of pre-compensating for the nonlinearity of a CRT, pages 100-101.) and a second correction curve segment lying above the predetermined level(see figure 6.6) of the input signal such that the corrected video signal conforms to film properties(The second curve segment is an exponential power function. See the bottom of page 100 through page 101.), and both correction curve segments are continuously combined and have the same slope at the predetermined level of the input signal(see figure 6.6).

However, the prior art of record does not teach nor reasonably suggest a correction curve having a slope of less than 5.0 at the origin, while being of the form $Signal_{OUT} = a^{*}\log_{10}(Signal_{IN} + b) + c$, as recited in claim 4.

Claims 5, 6, 23, 25 and 27 are allowed as depending from an allowed claim 4.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Adams et al. (US 5,708,729) teaches of a composite correction curve comprised of multiple segments (figure 2, column 4, lines 30-63).

10. Mori et al. (US 7,088,390) teaches of a correction curve having a slope of less than 5.0 at the origin (See $\Gamma = 1$, figure 5, column 13, lines 20-31).

11. Capozzi et al. (US 5,164,993) teaches mapping a linear histogram in grey space to a logarithmic histogram using the equation $Signal_{OUT} = a^{*}\log_{10}(Signal_{IN} + b) + c$ (see column 6, lines 37-50).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALBERT H. CUTLER whose telephone number is (571)270-1460. The examiner can normally be reached on Mon-Thu (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AC/
09/25/2008

/Ngoc-Yen T. VU/
Supervisory Patent Examiner, Art Unit 2622